

low islands, and the *Butomus* to the river flats!" This latter is a newcomer which in less than forty years has taken possession. "It is a fine example of the overturn which can be brought about in a flora by a single species, when it is well equipped and leaves its horde of enemies behind as it enters a new territory—a fine illustration of dynamic violence in time and space."

"From this rapid survey, some conclusions stand out, it seems, rather clearly.

"The intrinsic influences, forces of evolution or elimination which have dynamic influence on floras in general, and on the flora of Quebec in particular, are a function of the nature of organic beings, and will continue to work out slowly but relentlessly in the direction of development, or in the direction of retrogression.

"The extrinsic influences, which have to do especially with the intelligent activity of man, and his means of action on nature, are essentially more rapid and brutal. They tend to blend and blur the floras, to lead them to a state of equilibrium quite different from the natural equilibrium. By destroying barriers, by suppressing distances, by setting in motion agents of transportation which upset the age-long balance of the elements of the biosphere, they tend to establish on the planet a certain uniformity which would be a state of equilibrium analogous to that toward which the forces of erosion tend. But these extrinsic forces would gradually lose their intensity in case of the destruction of our civilization and a return to barbarism; they would cease to act with the disappearance of the human race. The old balance ought then to reestablish itself, in considerable measure. The hordes of plants long held in check by human toil, the plants of prey long treated as enemies, would advance over our fields, would rise to the assault of our cities and towns, would cover the ruins of them with thick masses of vegetation, while above the ashes of the human edifice, in an atmosphere become more pure, above an earth once more silent, would shine again, liberated, wild, yet magnificent, the torch of life."—CLARENCE H. KNOWLTON, Hingham, Massachusetts.

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A CALLITRICHE NEW TO MASSACHUSETTS.—*Callitriche deflexa* A. Br., var. *Austini* (Engelm.) Hegelm. is one of the most obscure flowering plants. Prostrate upon the ground, little branched, with leaves "2-4 mm. long," it looks like nothing at all, or at most like sterile basal shoots which may later grow to be something. This probably accounts for its having been so long overlooked on one of the most frequented trails on Mt. Toby. Here it was first collected by the writer on 27 July 1927. It was seen again in 1928, but not collected again until 10 July 1929, as its rarity was not at first suspected. The identification has been kindly verified by Mr. C. A. Weatherby of the Gray Herbarium, who states that it appears to be the first collection of this species in Massachusetts. The Manual records its range as far north as Connecticut, only. This station is

in the town of Sunderland, Franklin County. There is a considerable quantity of the plant scattered along quite a long strip of old lumber road through the woods.—FRANK C. SEYMOUR, North Amherst, Mass.

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